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ABSTRACT

Since the 1960s there has been a major expansion in the number of people in Australia holding post school educational credentials and the proportion of the full time work force with those credentials. The penalties of not holding credentials, in terms of the incidence and duration of unemployment, are increasingly severe. At the same time, there has been a long term decline in the income associated with degree and trade qualifications, relative to all incomes. One source of claims about declining educational standards is that the need for education is coinciding with declining returns from education. Within the long term trend there has been some fluctuation, with the 1980s showing increases in the incomes associated with academic degrees. However, this trend is thought to be only temporary because increases in numbers of graduates have been more rapid than the growth of total employment. The notion of credentialism and positional good explains that if educational demand and supply don't rise in tandem, and if the value of that education is not held high in the labor market, quality increases in education do little to influence the economic benefits of having higher education. Contains 18 references. (Author/GLR)

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Educational credentials in Australia: average positional value in decline

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HE 027 311

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Educational credentials in Australia: average positional value in decline

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Abstract

Since the 1960s there has been a major expansion in the number of people holding post school educational credentials, and the proportion of the full time work force with those credentials. The penalties of not holding credentials, in terms of the incidence and duration of unemployment, are increasingly severe. At the same time, there has been a long term decline in the income associated with degree and trade qualifications, relative to all incomes: rising needs for education coincide with declining returns from education, and this is one of the sources of claims about declining standards. Within the long term trend there has been some fluctuation, with increases in the incomes associated with degrees during the 1980s: this is likely to prove temporary.

Human capital theory does not understand these trends well, and the notions of credentialism, and of education as a positional good, are a better basis of explanation.

This paper is an amended version of a presentation to the Economic Society of Australia's 21st Conference, 10 July 1992, University of Melbourne.

Growth in the incidence of credentials

In the last three decades the number of Australians holding post school credentials (educational qualifications) has grown very rapidly. As Table 1 shows, between the Commonwealth Censuses of 1966 and 1986 the number of degree holders rose by 405.7 per cent, while the total population rose by 46.7 per cent and the workforce rose by only 34.1 per cent (ABS 1989). Whereas in 1966 only 4.1 per cent of people held higher education qualifications, in 1986 the proportion was 8.5 per cent, as Table 6 explains.

Since 1968-69 the Australian Bureau of Statistics income surveys have identified the qualifications of people in the full time workforce. In the successive surveys the trend is to ever higher levels of credential. In 1968-69 3.2 per cent of full year full time workers held degrees, and 12.2 per cent held trade certificates. In 1989-90 these proportions had risen to 13.3 per cent degrees and 20.7 per cent trade certificates. Strikingly, the proportion of full year full time workers whose highest credential was 'left school at 15 or less' fell from 52.0 per cent in 1968-69 to 19.9 per cent in 1989-90 (ABS 1992a). Table 7 shows these trends in greater detail. Note however that the relative growth in credentials is probably exaggerated in the data here, because of the overall shift to part time work, and the growing incidence of unemployment. The Bureau of Statistics data cover only the full year full time workforce.

The effects of increased educational participation show themselves more quickly in the credential profile of the 25 to 34 year age group, than in the full year full time workforce as a whole. Over the period 1973-74 to 1989-90, the proportion holding degrees jumped from 6.6 per cent to 17.2 per cent, the total proportion holding post school qualifications rose from 41.5 per cent to 60.1 per cent, and the proportion who left school at 15 or less fell from 34.7 per cent to 11.1 per cent. Table 2 provides a summary of these trends. Note that in 1989-90 the incidence of degrees was higher among women (19.1 per cent) that among men (16.3 per cent), although very few 25 to 34 year old women held trade certificates (2.9 per cent) compared to men (30.9 per cent). Separate Australian Bureau of Statistics' data on the transition from education to work show that in the apprenticeship streams, men outnumber women by nine to one (ABS 1991).

Penalties for those without credentials

It is not surprising that the proportion of early school leavers has fallen dramatically since the 1960s. There has been a continuous decline in the full

time labour market for teenagers. It is a trend which pre-dates the relative increase in junior wages, which took place during the 1970s (Sweet 1990).

In August 1966 there were 615 000 full time jobs held by 15 to 19 year olds. In March 1992 there were only 253 900 such full time jobs. In 1966 some 59 per cent of teenagers were in full time work. By August 1983 the proportion had fallen to 32 per cent and in March 1992 it was only 19 per cent. In 1992 most of these full time jobs were held by 18 and 19 year olds. In March 1992 only 3 600 15 year olds and 14 900 16 year olds were working full time. The proportion of teenagers holding part time jobs has risen significantly, from 4 per cent in 1966 to 23 per cent in 1992. However, these are mostly jobs in retail, hospitality and tourism with no career prospects, the majority held by full time students. Full time teenage employment seems to be disappearing for good - certainly for all of those aged less than 18 years (ABS 1992b; Freeland 1986; Marginson 1992).

Those holding credentials appear to possess significant advantages over the unqualified. Labour force participation rises at the higher levels of credential. There is a strong positive association between educational attainment and the probability of further training of a vocational nature: apparently, educational advantage breeds further educational advantage (Miller and Volker 1987: 51). The average duration of unemployment is shorter for degree holders than all other categories - in February 1987, when boom conditions prevailed, the average duration was 11 weeks for degree holders, 14 weeks overall and 26 weeks for those who left school at 15 or less. The unemployment rate is highest among early school leavers and lowest for degree holders. For example in February 1987 the overall unemployment rate was 9.0 per cent. It was 3.6 per cent for degrees, 5.6 per cent for certificates, and 11.4 per cent for those who left school at 15 or less (ABS 1987).

Comparing Census data for 1976 and 1986, Chia found that there was a widening gap between the unemployment rates of graduates aged 20 to 24 years, and non-graduates of the same age group (Chia 1989: 15-16). The Bureau's data for all age groups indicate that in the incidence of unemployment, the relative advantage of degree and certificate holders increased during the early and mid 1980s, although the gap closed slightly during boom conditions at the end of the decade.

Relative earnings associated with credentials

Nevertheless, the Bureau's income surveys show that in *relative* terms there has been a long term decline in the average levels of income associated with post

school credentials - 'relative' meaning relative to average earnings received by *all* full year full time workers. Table 3 shows the average (mean) gross annual earned income received by full year full time workers at each level of highest educational credential, for those aged 25 to 34 years, between 1968-69 and 1989-90 (ABS 1992b).

Table 4 expresses the same information in terms of the ratio of the income at *each* level of credential, to the *average* level of income in that year. That is, the ratios show the income associated with each level of credential, relative to *all* incomes.

Note that the words 'associated with' are used to avoid making the presumption that income is determined by the level of credential. That simple proposition cannot be assumed (or refuted) without a complex investigation that is outside the scope of this article. For more discussion of the point see Blaug (1987) and Maglen (1990), who argue convincingly that the conventional human capital assumptions that the cost of education equals marginal productivity equals wages have never been grounded empirically.

The apparent *relative* returns to a degree fell dramatically between 1968-69 and 1981-82, from 1.79 of average incomes to 1.24. After the early 1980s there was a slight improvement in the relative position of degree holders, to 1.30 in 1989-90. The position of trade certificate holders went through a similar evolution, at a lower level. The position of those who left school at 16 declined continuously, from 0.93 of average earnings for the age group in 1968-69, to 0.85 in 1989-90. The trend for full time workers who left school at 15 or less is less clear cut, but this may be due to the effects of growing structural unemployment on the data for the early school leaver group.

If education is as a positional good, as suggested by Hirsch (1976) and others, then the *average* standing of a degree, in positional terms, has declined. Notwithstanding that trend, there may be particular degrees, such as a medical degree, which have retained their positional value. (Unfortunately the Bureau data cannot be disaggregated by field of study, and the Census data on earnings by field of study do not enable an equivalent series).

The improvement in the relative position of graduates since the early 1980s may be one of the explanations for the pronounced increase in demand for places in higher education, at the end of the 1980s (increased school retention is another plausible explanation). This improvement probably reflects the slowdown of growth in the number of higher education credentials, between the late 1970s and the mid 1980s, intersecting with the increased demand for graduates as economic activity picked up from 1984 onwards. But it is an improvement likely to prove temporary, given that after 1988 the

growth of graduate numbers has been much more rapid than the growth of total employment. The next ABS income survey will show return to the long term trend of declining relative position of graduates (that is, relative to the whole workforce) unless the effect of growth in higher education is outweighed by a very massive displacement of non-graduate labour by graduate labour during the present recession. Some displacement is occurring, as in all recessions, but a massive displacement seems unlikely.

It is interesting to compare the trends for men and women. The relative position of women degree holders improved in the first half of the 1980s but showed little change in the second half of the decade. For men, the trend was the opposite: little change in the first half of the decade but improvement in the second half, from 1.31 of the average in 1985-86, to 1.39 in 1989-90. Table 5 shows the differences.

Positional good or human capital?

Thus the long term social standing (in this sense, value) of *each particular* level of education has declined in relative terms, although the value of education relative to *non-education* has been enhanced. But the main body of work on returns to graduates has been conducted in terms of human capital economics - and human capital methods produce a different finding. According to Chia (1989) and others, there has been *no* long term decline in the returns to degrees. Can these apparently conflicting findings be reconciled?

The conventional human capital method is based on the paradigm of *homo economicus*, the rational choice making individual. It is assumed that students decide whether or not to undertake a further course of study on the basis of a comparison of the costs of further study, with the benefits of gaining the additional credential. Becker (1975) provides a good summary of the assumptions and methodology. Thus human capital economists calculate returns to graduates in terms of the difference between earnings received by graduates, and earnings received by those who choose not to become graduates - those who leave education at the end of school.

Human capital economics does not measure the earnings position of graduates within the *overall* labour market, but compares the absolute level of earnings associated with one level of education against those associated with another. This is not a 'pure' measure of the positional value of education, because it loses sight of the overall picture. Further, it ignores the fact that *both* parts of the comparison (both the degree holders and the school-leavers) tend

to change. Now, it is possible for the positional value of a degree to decline even while it maintains its value relative to Year 12 credentials provided that the positional value of both credentials (the degree, and Year 12) decline at the same time. In such a circumstance, the degree might hold its value relative to the Year 12 credential, even while both credentials are in decline relative to the total population.

This is exactly what has happened. When the human capital methodology is used, the declining positional value of Year 12 qualifications serves to disguise the declining positional value of a degree. Some human capital economists have themselves drawn attention to the point. For example Chia asserts that 'the value of a tertiary degree does not appear to have fallen in the last ten years', between the late 1970s and the later 1980s - a period during which the ratios in Table 4 show decline. But more plausibly, he goes on to suggest that:

> 'This might have been due ... to degrees being used primarily as screening devices in the labour market, with the increase in the supply of graduates leading to a 'filtering' down of *both* graduates *and* non graduates in the job ladder. Hence, relative to past cohorts, both degree holders and non degree holders might, on average, have been worse off. However, within each cohort, graduates might still maintain their advantage over their non graduate peers' (Chia 1989: 23).

Thus the two apparently contradictory findings can be reconciled. Both make significant points about the relationship between education and the economy. The educated maintain their relative advantage over the non-educated, while being educated in itself is no longer associated with earlier levels of social standing. It is clear why people continue to 'invest' in education even while it no longer delivers as much as it once did. Nevertheless, it is arguable that human capital theory's version of the comparison between more or less education, the comparison between Year 12 and graduate credentials, is *not* the best way to measure this difference between more or less education. There are two reasons for this.

First, Year 12 is a credential whose labour market role has fundamentally changed in the last two decades. Once an important credential in its own right, it now has little standing. Longitudinal comparisons that rely on Year 12 as the denominator are therefore fundamentally flawed. Second, it is plausible to suppose that the overwhelming majority of students do not make cost-benefit calculations of the rates of return to an extra year's education. Actual decisions

whether to continue in education or not are likely to be made in terms of the overarching and general criteria used in this article - the broad positional value associated with a particular qualification, taking into account social status as well as income.

Subjective 'investor' judgements about the value of education are often made in terms of the value of credential **x** relative to the whole set of credentials to which **x** belongs, and not only to **x-1** (the next lowest level of credential) as the orthodox human capital position suggests. That is, secondary students deciding whether to go on to higher education, or TAFE, do not necessarily or even primarily think in terms of *marginal* utility -- or rather, while some may think like *homo economicus*, most will not.

The divide between school and further education is on one hand about an extra two or three years of education, and the costs and benefits concerned. On the other, it is about qualitative factors -- about whether to identify as a higher education or TAFE orientated person, or not. That is, this decision about whether to participate in post-compulsory education is often made at a fundamental long term level, between two broad choices - an education path and an employment path. The gradual disappearance of the full-time teenage labour market has changed this decision. The employment path was once very common but it is now less and less a viable option. To a large extent, it has become an 'unemployment path'. To the extent that teenage work survives, much of it will be in the form of mixed work/study arrangements in which working no longer excludes the acquisition of the positional good (Carmichael 1992).

In essence, this is a decision about whether to seek the positional good or not. Here, the concept of education as a positional good has more to offer than the concept of education as human capital. The point becomes more obvious during a period of graduate unemployment, where the earnings associated with education decline, while the long term advantages of credentials remain.

(The notion of positional good is more convincing in other respects. Human capital theory sees labour market opportunities and rewards as driven by the quantity of individual human capital. It focuses on the supply side with little or no recognition of demand factors; thus recessions play havoc with the cross-sectional analyses used by some human capital theorists. The concept of positional good leaves room for an interaction between supply and demand. It also understands the structures of the labour market as limiting the scope for individual benefits, rather than the simple aggregate of individual utilities defining those structures: the fallacy that the whole can be reduced to a sum of the parts, neglecting the relationships between the parts).

Credentialism and the standards debate

In a paper delivered to the 1992 Annual Conference of the Economics Society of Australia, Gregory explored trends in the incomes associated with each level of credentials, using the Australian Bureau of Statistics' income survey data.

Rather than comparing the income associated with each level of degree to the overall average, he compared the income associated with each level of degree to the received by workers in the *bottom* level of credential - those who left school at 15 years. Gregory's method falls between the classical human capital approach, and the assumption that education is a positional good. It is an advance on conventional human capital theory in that it offers a comparison between two broad streams, an employment path and an education path. But the two streams are compared to each other without being located in the context of the overall 'map' of credentials and earnings. Because the denominator group (those leaving education at 15) was not constant over the time period, the trends in the positional value of education were not revealed with precision.

However, Gregory's trend line was not very different to that identified in this article. Gregory found that for full year full time males, the advantage held by the degree holder fell from 2.38 in 1968-69 to 1.73 in 1981-82. It then fell more slowly to 1.70 in 1985-86, and rose to 1.79 in 1989-90 (Gregory 1992: 35). For Gregory, these findings raised questions about the conventional human capital explanation of the relationship between education and work:

> 'The rate of return to education for the economy as a whole ... must have fallen and is probably negative. Since 1976 the average number of years of schooling of the full-year full-time workforce has increased by one year from 11.6 to 12.5 years and yet real wages for non-managerial male workers has not increased in real terms and 71 per cent of *all* new jobs are in the bottom quintile of the male earnings distribution. The disjuncture between the rapid growth of the average level of education and new jobs being created primarily at the bottom of the earnings distribution is a major issue for policy and economic research. It is disappointing that from society's viewpoint so much investment seems not to be paying off' (Gregory 1992: 37).

Once the expectations generated by human capital theory are set aside, the phenomena identified by Gregory start to make sense. Increasing the number of graduates does not necessarily increase the number of professional jobs. As the present levels of unemployment suggest, the number and nature of jobs are determined by factors other than the supply and quality of labour. In the relationship between education and work, *demand* for labour is also very important, and demand for labour is largely extrinsic to education.

This paper began by pointing out that there has been a massive growth in the number of credentials in the labour markets. The aggregate growth is associated with an extension, both horizontally across occupations, and down the occupational scale, in the role of post school credentials at the point of entry into occupations (OECD 1985: 47; Ashenden 1988). This trend is often called *credentialism*, and it has two important corollaries that have already been noted. First, educational credentials are more necessary than before, for effective participation in at least the full time labour markets. Second, at the same time, educational credentials offer less in relative terms than they once did.

What we are experiencing is the dynamic conjunction of rising needs for and demands on education, and declining apparent returns. Human capital approach fails the test of explanation because it conflates these two distinct, opposing and interacting trends in the relationship between education and the labour market, into the single finding that there has been little change in the returns to graduates. The notions of credentialism, and education as a positional good, better explain the apparent contradiction.

In turn these hypotheses help to explain the emergence of the standards debate in education. Given the conventional human capital assumptions, one would expect (as Gregory did) that more education would improve the quality of the workforce, leading to more productivity, economic growth and higher earnings. Given the theory, when these outcomes do not occur, the natural conclusion is that the education is in some way deficient, that its quantity has expanded but its quality has declined. Given the orthodox economic assumptions, the declining standards hypothesis is plausible.

The corollary to this reasoning is that if the quality of education can be improved - by Advanced Skills Teacher positions, or 'productivity savings', or market reforms, or some other way - then the economic benefits of education that have been promised by human capital theory can be realised. This type of reasoning is dominant in policy circles. If only it was that easy.

The notion of credentialism explains how advanced education - even an education of high and improving quality - is more and more likely to be associated with lower paying jobs. This suggests that reforms to education are

unlikely to produce the hoped for economic benefits, unless the demand for education increases in tandem with the supply.

Likewise, the concept of education as a positional good helps to explain why the *standing* and labour market value of a particular level of education (such as a university degree) may decline, even while the quality (the *standard*) of that education may itself be improving. Further, it explains why people must persist in education even while its standard is seen to fall; the positional value of no education is also in decline. Growing disappointment and frustration are inevitable. But there is little that educators can do about these responses, until there is a shift in common sense understandings of the relationship between education and work, so that people start to distinguish the absolute quality of education from the relative social position achieved by graduates.

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Table 1

INCREASE IN NUMBER OF DEGREE HOLDERS

COMPARED TO INCREASE IN POPULATION AND WORKFORCE

AUSTRALIA: CENSUSES 1966 AND 1986

	1966	1986	Percentage 1966-1986
Number of Degree Holders	119,327	603,449	+405.7%
Total Workforce	4,856,455	6,513,515	+34.1%

(Source: Commonwealth Bureau of Census and Statistics and Australian Bureau of Statistics, Census data).

Table 2

HIGHEST EDUCATIONAL QUALIFICATIONS, FULL TIME WORKFORCE

25 TO 34 YEARS AGE GROUP
AUSTRALIA: 1973-74 AND 1985-86

Qualification	**Proportion with that qualification**	
	1973-74 (%)	1989-90 (%)
Degree	6.6	17.2
Trade Certificate	17.3	22.7
Other Post School	17.6	20.2
Left School 16 or Over*	23.8	28.9
Left School 15 or Under**	34.7	11.1
Total	*100.0*	*100.1*

* includes end of year graduates but no higher
** includes those who never attended schools

(Source: Commonwealth Bureau of Census and Statistics and Australian Bureau of Statistics, income surveys for the years named).

Table 3

ANNUAL INCOME BY EDUCATIONAL QUALIFICATION
AUSTRALIA: 1968-69 TO 1989-90

FULL-YEAR, FULL-TIME WORKERS AGED 25 TO 34 YEARS

Qualification	Average (mean) gross annual earned income in:					
	1968-69 ($)	1973-74 ($)	1978-79 ($)	1981-82 ($)	1985-86 ($)	1989-90 ($)
Degree	6610	10450	16670	20500	27550	38140
Diploma/Certificate*	4600	7970	12480	18100	21890	28570
Trade Certificate	3970	6760	12020	15800	22670	29070
Left School at:						
18 or more	n/a	n/a	11730	17100	20300	28280
17	3650	6420	11590	15800	20370	27090
16	3440	5920	10890	14400	19150	24850
14-15	3210	5670	10520	14400	18790	24840
13 or less	2760	5070	9830	12500	17660	25970
Total	*3690*	*6610*	*12100*	*16500*	*21940*	*29310*

* Non-trade certificate

n/a mean data not available

(Source: Commonwealth Bureau of Census and Statistics and Australian Bureau of Statistics income survey data to the years named)

Table 4

ANNUAL INCOME BY EDUCATIONAL QUALIFICATION
AUSTRALIA: 1968-69 TO 1989-90

FULL-YEAR, FULL-TIME WORKERS AGED 25 TO 34 YEARS

Relative advantage associated with each qualification

Qualification	Average gross annual earned income, as a ratio of the average income to all workers, in:					
	1968-69	1973-74	1978-79	1981-82	1985-86	1989-90
Degree	1.79	1.58	1.38	1.24	1.26	1.30
Diploma/Certificate*	1.25	1.21	1.03	1.10	1.00	0.98
Trade Certificate	1.08	1.02	0.99	0.96	1.03	0.99
Left School at						
18 or over	n/a	n/a	0.97	1.04	0.93	0.96
17	0.99	0.97	0.96	0.96	0.93	0.92
16	0.93	0.90	0.90	0.87	0.87	0.85
14-15	0.87	0.86	0.87	0.87	0.86	0.85
13 or less	0.75	0.77	0.81	0.76	0.80	0.89
TOTAL	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*

* non-trade certificate. Note that this category alters in 1978-79 and the series is not very reliable.

n/a mean data not available.

(Source: Commonwealth Bureau of Census and Statistics and Australian Bureau of Statistics, income surveys for the years named).

Table 5

RELATIVE ADVANTAGE ASSOCIATED WITH DEGREES

FULL-YEAR FULL-TIME WORKERS, 25 TO 34 YEARS

AUSTRALIA: 1973 TO 1989-90

	Average gross annual earned income, as a ratio of average income to <u>all</u> workers.				
	1973-74	1978-79	1981-82	1985-86	1989-90
Women	1.26	1.16	1.10	1.13	1.13
Men	1.65	1.44	1.30	1.31	1.39
Persons	1.58	1.38	1.24	1.26	1.30

(Source: Commonwealth Bureau of Census and Statistics and Australian Bureau of Statistics, income surveys for the years named).

Table 6

HIGHEST EDUCATIONAL QUALIFICATIONS OF PEOPLE AGED 15 AND OVER AUSTRALIA: CENSUSES IN 1966, 1971 AND 1986

	Number of People			Proportion of Total		
	1966	1971	1986	1966 (%)	1971 (%)	1986 (%)
WOMEN						
Degree	29,445	47,397	233,605	0.7	1.0	3.9
Other higher education	88,266	137,983	230,145	2.2	3.0	3.8
Certificate	n/a	227,395	710,088	n/a	5.0	11.7
Other	n/a	148,046	16,168	n/a	3.3	0.3
No qualific'n*/ unstated	n/a	3,992,308	4,871,013	n/a	87.7	80.4
Total	*4,079,353*	*4,553,432*	*6,061,019*	*100.0*	*100.0*	*100.1*
MEN						
Degree	89,882	130,242	369,844	2.2	2.9	6.3
Other higher education	125,489	149,805	189,507	3.1	3.3	3.2
Certificate	n/a	967,806	1,387,874	n/a	21.4	23.5
Other	n/a	46,336	18,568	n/a	1.0	0.3
No qualific'n*/ unstated	n/a	3,237,415	3,938,499	n/a	71.4	66.7
Total	*4,078,621*	*4,532,154*	*5,904,292*	*100.0*	*100.0*	*100.0*
PERSONS						
Degree	119,327	177,639	603,449	1.5	2.0	5.0
Other higher education	213,755	287,788	419,652	2.6	3.2	3.5
Certificate	n/a	1,195,201	2,097,962	n/a	13.2	17.5
Other	n/a	194,382	34,736	n/a	2.1	0.3
No qualific'n*/ unstated	n/a	7,229,773	8,809,512	n/a	79.6	73.6
Total	*8,157,974*	*9,085,586*	*11,965,311*	*100.0*	*100.0*	*100.0*

* includes people still at school
n/a mean data not available

(Source: Commonwealth Bureau of Census and Statistics, Australian Bureau of Statistics)

Table 7

HIGHEST EDUCATIONAL QUALIFICATION, FULL-TIME WORKFORCE AUSTRALIA: 1968-69 TO 1989-90, ALL AGE GROUPS

	1968-69 (%)	1973-74 (%)	1978-79 (%)	1981-82 (%)	1985-86 (%)	1989-90 (%)
WOMEN						
Degree	1.8	3.0	5.1	7.5	11.9	12.9
Trade Certificate	1.7	2.0	2.3	4.1	3.3	2.8
Other post-school qualifications	11.2	21.9	33.4	29.1	32.2	33.9
Left school at 16 or over*	30.1	28.0	24.3	28.3	27.9	28.8
Left school at 15 or less**	55.2	45.0	34.8	31.1	24.4	21.6
Total	*100.0*	*99.9*	*99.9*	*100.1*	*99.9*	*100.0*
MEN						
Degree	3.7	4.5	8.1	9.1	10.7	13.4
Trade Certificate	15.6	18.4	26.1	27.1	28.4	28.2
Other post-school qualifications	8.6	12.9	16.7	15.3	13.9	14.7
Left school at 16 or over*	21.2	22.1	19.8	22.3	23.5	24.5
Left school at 15 or less**	51.0	42.1	29.4	26.2	23.5	19.1
Total	*100.1*	*100.0*	*100.0*	*100.0*	*100.0*	*99.9*
PERSONS						
Degree	3.2	4.1	7.3	8.7	11.0	13.3
Trade Certificate	12.2	14.3	19.7	21.3	21.7	20.7
Other post-school qualifications	9.2	15.2	21.1	18.8	18.8	20.3
Left school at 16 or over*	23.3	23.6	21.0	23.8	24.7	25.8
Left school at 15 or less**	52.0	42.8	30.8	27.4	23.7	19.9
Total	*99.9*	*100.0*	*99.9*	*100.0*	*99.9*	*100.0*

* includes end of year school qualification, but no higher. In 1981-82 only, those completing secondary school but going no higher are included in "other post-school".

** includes those who never attended school.

(Source: Commonwealth Bureau of Census and Statistics and Australian Bureau of Statistics income survey data to the years named)

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For further information on any of these matters, please contact the Departmental Secretary, Centre for the Study of Higher Education, University of Melbourne, Parkville, Victoria, 3052, Australia.
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